

Delta Independent Science Board Educational Briefing Questionnaire

Please provide short written responses to the following:

1. Program Title: Interagency Ecological Program (IEP)
2. Lead Agency/Department for Program: This program is cooperatively led by the State or regional directors of nine member agencies (DFG, DWR, SWRCB, US EPA, Reclamation, USGS, FWS, NOAA Fisheries, US ACE). The IEP program manager is a DFG employee and the DFG director chairs the quarterly IEP directors meetings. The IEP Lead scientist works for the Delta Stewardship Council (not an IEP member agency) and the interim chair of the IEP Coordinators team works for the US EPA.
3. Brief Description of Program: The IEP was founded in 1970 to implement, coordinate, and integrate scientific activities in the San Francisco estuary carried out by four State and Federal agencies. The original focus was on the effects of water project operations on fish and wildlife in the estuary. In 2011, the program focus has broadened (see 4. below) and the IEP has six Federal and three State member agencies. Working closely with the Delta Science Program, the IEP also provides a forum for coordinating other studies funded by the IEP agencies and by others and for synthesizing and communicating results. The 2011 program includes nearly 150 individual monitoring and research projects carried out by collaborative teams of agency, academic, and private scientists with a total annual budget of \$39.1 million. IEP projects fall into three large program categories:

IEP Core Program – Bay-Delta monitoring that provides key long-term and real-time data sets used in many studies, status and trends assessments, daily water project operations, and for regulatory purposes. Most of this monitoring is required by State Water Right Permits or Federal Biological Opinions for the coordinated operation of the State and Federal Water Projects (OCAP). 2011 program: 30 projects, \$16.8 million. <http://www.water.ca.gov/iep/activities/monitoring.cfm> Contact: Kelly Souza, IEP Program Manager, 209 942-6109, ksouza@dfg.ca.gov.

IEP Pelagic Organism Decline (POD) and Directed Studies Program – An integrated set of studies to investigate the causes of the steep decline of two native and two non-native pelagic fish species in the Bay-Delta. The POD program is currently broadening its scope to include other species and biological communities in the Bay-Delta. 2011 program: 34 active projects, \$4.5 million. http://www.science.calwater.ca.gov/pod/pod_index.html Contact: Anke Mueller-Solger, IEP Lead Scientist, 916 445-0147, amueller@deltacouncil.ca.gov.

IEP Coordinated Studies Program – coordinated short-term studies and some monitoring funded as part of other (non-IEP) programs and/or by entities that are not IEP member agencies. This includes selected Federal Task Force studies, studies required by the Central Valley Project Improvement Act (CVPIA, <http://www.usbr.gov/mp/cvpia/index.html>), and studies funded by the Delta Science Program (<http://www.deltacouncil.ca.gov/science-program>) and the CALFED Ecosystem Restoration Program. 2011 program: 80 active projects, \$17.8 million. <http://www.water.ca.gov/iep/activities/research.cfm> Contact: Erwin Van Nieuwenhuyse, Ph.D., Chief, Science Division Bay-Delta Office, Bureau of Reclamation 916-414-2406/2439, evannieuwenhuyse@usbr.gov

4. Purpose and Objectives of Program: The mission of the IEP is, in collaboration with others, to provide ecological information and scientific leadership for use in management of the San Francisco Estuary. The goals of IEP are to:
 - Describe the status and trends of aquatic ecological factors of interest in the estuary
 - Develop an understanding of environmental factors that influence observed aquatic ecological status and trends
 - Use knowledge of the above information in a collaboration process to support natural resource planning, management, and regulatory activities in the estuary
 - Continually reassess and enhance long-term monitoring and research activities that demonstrate scientific excellence

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- Provide scientific information about the estuary that is accurate, accessible, reliable, and timely
5. Timeline for Program Objectives: Ongoing - the IEP is a long-term program that makes its science products (data and information) available in many ways, ranging from data available in near-real time or at longer intervals (<http://www.water.ca.gov/iep/products/data.cfm>) to approximately quarterly IEP newsletter articles (<http://www.water.ca.gov/iep/products/newsletter.cfm>) and science highlights (<http://www.water.ca.gov/iep/highlights/index.cfm>) to a variety of other types of reports and peer reviewed publications (see e.g. <http://www.water.ca.gov/iep/pod/>) as well as talk and poster presentations at the annual IEP conference (known as the IEP workshop, see), in IEP technical work teams (known as Project Work Teams, see <http://www.water.ca.gov/iep/docs/IEP-ORG.pdf>), and at many other regional, national, and international conferences. The IEP also conducts regular technical and programmatic reviews of the overall program and individual program elements to ensure continued relevance, scientific integrity and suitability, and compliance with legal requirements. These reviews are conducted by IEP staff with help from local and external experts. The IEP Science Advisory Group (SAG) is a standing panel of independent external experts that was established in the 1990s. IEP regularly calls on the SAG to review IEP elements and provide advice on scientific issues. In 2008, the CALFED Independent Science Board conducted an additional independent review of the IEP, see <http://www.water.ca.gov/iep/activities/reviews.cfm>. The IEP stakeholder group is known as the MLAG, see <http://www.water.ca.gov/iep/about/advisory.cfm>.
6. Current Status of Program: Active. 2012 Core Program has been approved by the IEP Directors (2012 Core Program Budget is \$17.6 million), 2012 Directed and Coordinated Program is under development. The IEP is engaged in discussions about the future of the IEP, including its role in Delta Plan and BDCP implementation, regional contaminants monitoring, etc.
7. Contact Information for Lead Staff of this Program:

Name	Kelly Souza	Anke Mueller-Solger
Title	IEP Program Manager	IEP Lead Scientist
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Email	KSOUZA@dfg.ca.gov	amueller@deltacouncil.ca.gov

8. Associated Total Annual Budget for Program: \$39.1 million in 2011 (\$21.3 million for Core and Directed, see above)
9. URL, if a Website is Available: <http://www.water.ca.gov/iep/>
10. How does adaptive management play a role in your program? Data and information collected, managed, analyzed, and synthesized by the IEP is used in adaptive management of the State and Federal Water projects, see e.g. <http://www.water.ca.gov/swp/operationscontrol/index.cfm> and <http://www.fws.gov/sfbaydelta/ocap/>. The IEP is also coordinating scientific activities associated with CVPIA adaptive management, see e.g. <http://www.fws.gov/stockton/> and http://www.usbr.gov/pmts/tech_services/tracy_research/index.html. In 2011, the IEP is assisting in developing and implementing the scientific aspects of the Federal "Fall Outflow Adaptive Management plan" for delta smelt (<http://www.fws.gov/sfbaydelta/documents/Adaptive%20Management%20of%20Fall%20Outflow%20or%20Delta%20Smelt%20Protection%20and%20Water%20Supply%20Reliability.pdf>). The IEP is also expected to play a key role in carrying out monitoring and research needed for Delta Plan and BDCP implementation.
11. Any additional information that would be helpful to understand the program:

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Thank you very much for taking the time to respond to this questionnaire. Please return your completed questionnaire to Gina Ford (gina.ford@deltacouncil.ca.gov) no later than October 6, 2011.